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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,839	02/13/2002	Gerard Briand	PF010010	9042

7590

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EXAMINER

LEE, Y YOUNG

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/075,839

Applicant(s)

BRIAND ET AL.

Examiner

Y. Lee

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/13/02</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

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The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because paragraphs 2 and 3 should be deleted. Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

4. Claims 5 and 7 are objected to because of the following informalities:
  - a. Claim 5, line 5, "the" should be deleted; and
  - b. Claim 7, line 12, "the" should be deleted.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-3, 8, 9, and 11-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhu (6,462,791).

Zhu, in Figures 6 and 8, discloses the same frequency converter 145, video coder 110, and method of detecting the reliability of a field of movement vectors of one image in a sequence of video images as specified in claims 1-3, 8, 9, and 11-14 of the present invention, characterized in that it includes a stage of calculating a stability parameter for the field, on the basis of a comparison S330, over two successive images, of the number of occurrences of the majority vectors of the movement-vectors fields of each of these images (Fig. 5), a field being defined as stable if the variation in the number of occurrences lies within a predefined bracket (THRESHOLD), and a stage of deciding on reliability S570 on the basis of this stability parameter.

With respect to claims 2, 3, and 12, Zhu also includes a stage of calculating disturbance parameter for the field, on the basis a comparison S530, over two successive images, of the number of occurrences of the movement vector corresponding to the majority vector of one of the two images, a field being defined as

not disturbed if the variation in the number of occurrences lies within a predefined bracket T, and in that the decision stage is also based on this disturbance parameter; and if the variation in the number of occurrences of the zero vector S540 in the movement-vectors field, between successive images, lies within a predefined bracket, and in that the decision stage is also based on this disturbance parameter.

With respect to claims 8 and 9, Zhu discloses that the occurrences of the vectors are relative to the value of the horizontal component (x) of these vectors; and the decision stage also takes into account a parameter for the detection of saturation of the movement-vectors field (Fig. 5, vector field orientation).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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9. Claims 4-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu in view of Avis et al (4,864,398).

Although Zhu discloses detecting movement vectors based on a plurality of images, it is noted Zhu differs from the present invention in that it fails to particularly disclose calculating the vectors in a time-domain for detection of a change of scene in the video sequence as specified in claims 4-7 and 10. Avis et al however, in Figures 12-15, teaches the concept of such well known stability state on the basis of the stability parameters for this image and of P-1 preceding images, a state being declared as stable or disturbed (e.g. Fig. 13) if a minimum number of stable fields is detected among these P images, P and Q being integers such as 2 and 1, and in that the decision stage is also based on this stability state (Fig. 15).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having both the references of Zhu and Avis et al before him/her, to exploit the common time-domain stability calculation technique as taught by Avis et al in the vector reliability detection method of Zhu in order to provide smooth and predictable motion vectors, so improving the overall subjective effect in the final picture.

### **Conclusion**

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hackett et al and Kerdranvrat disclose method of segmenting the field of motion of an image using motion estimation.

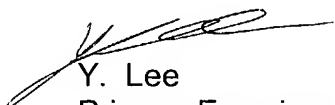
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. Lee whose telephone number is (703) 308-7584.

The examiner can normally be reached on (703) 308-7584.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Y. Lee  
Primary Examiner  
Art Unit 2613

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